Complete Summary

GUIDELINE TITLE

Pregnancy and breast cancer.

BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). Pregnancy and breast cancer. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2004 Jan. 7 p. (Guideline; no. 12). [58 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Pregnancy and breast cancer

GUIDELINE CATEGORY

Management
Risk Assessment

CLINICAL SPECIALTY

Family Practice
Obstetrics and Gynecology
Oncology

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide up-to-date information on the management of women with breast cancer who are pregnant or seeking pregnancy after treatment for breast cancer

TARGET POPULATION

Women with breast cancer who are pregnant or seeking pregnancy after treatment for breast cancer

INTERVENTIONS AND PRACTICES CONSIDERED

Management and Treatment

1. Promotion of breastfeeding to reduce breast cancer risk
2. Deferral of conception (following breast cancer treatment)
3. Treatment of breast cancer during pregnancy
    - Surgery
    - Chemotherapy
    - Radiation therapy
4. Breastfeeding following treatment for breast cancer (note: breastfeeding during chemotherapy or radiotherapy is not recommended)

MAJOR OUTCOMES CONSIDERED

- Incidence of breast cancer during pregnancy
- Risk of breast cancer recurrence
- Survival rates following breast cancer during pregnancy
- Effects of breastfeeding on breast cancer risk

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A literature search was performed using Medline (1997–2002). The key words used were "breast cancer," "breast neoplasms," "mastectomy," "pregnancy," "pregnancy complications," "breastfeeding," "lactation," "fertility," "infertility," "abortion," "contraception," "contraceptive devices," and "contraceptive agents." Abstracts were used to identify key articles.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Ia: Evidence obtained from meta-analysis of randomised controlled trials

Ib: Evidence obtained from at least one randomised controlled trial

IIa: Evidence obtained from at least one well-designed controlled study without randomisation

IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study

III: Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies, and case studies

IV: Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The recommendations were graded according to the level of evidence upon which they were based.

Grade A - Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation (evidence levels Ia, Ib)

Grade B - Requires the availability of well-conducted clinical studies but no randomised clinical trials on the topic of recommendations (evidence levels IIa, IIb, III)

Grade C - Requires evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates an absence of directly applicable clinical studies of good quality (evidence level IV)

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Following discussion in the Guidelines and Audit Committee, each green-top guideline is formally peer reviewed. At the same time the draft guideline is published on the Royal College of Obstetricians and Gynaecologists (RCOG) website for further peer discussion before final publication.

The names of author(s) and nominated peer reviewers are included in the original guideline document.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

In addition to these evidence-based recommendations, the guideline development group also identifies points of best clinical practice in the original guideline document.

Levels of evidence (Ia-IV) and grading of recommendations (A-C) are defined at the end of the "Major Recommendations" field.

<u>Reproductive Factors and Breast Cancer Risk</u>

C - Women should be advised to breastfeed if possible, as this is likely to reduce their risk of breast cancer in addition to any other benefit.

Treatment of Breast Cancer During Pregnancy

There is no evidence that termination of pregnancy after diagnosis of breast cancer is necessary to improve prognosis.

Treatment during pregnancy will require discussion between the woman, the oncologist, and the obstetrician on the relative benefits of early delivery followed by treatment versus commencement of therapy while continuing the pregnancy. Generally the data for immediate treatment are reassuring, and delay or refusal to undergo therapy has serious consequences.

Although standard protocols are not available, surgery is usually the first-line treatment, with mastectomy or lumpectomy and axillary clearance being the preferred option and deferring reconstruction. [Evidence level III]

Provided that chemotherapy is not used in the first trimester (when it may induce spontaneous miscarriage), it appears to be relatively safe for subsequent use. Although there is a general recommendation to avoid the use of tamoxifen during pregnancy, there is a case report of its use during pregnancy with metastatic breast cancer. The use of radiotherapy to treat breast cancer in pregnancy is not absolutely contraindicated but an appropriate thickness of lead shielding should be used to reduce fetal dose. [Evidence level III]

If chemotherapy is necessary in the first trimester, termination of pregnancy may be proposed. One study advises that, if the cancer is detected in the second trimester and is early-stage, lumpectomy can be followed by chemotherapy and radiation can be withheld until after the birth of the child. In the third trimester, if cancer is detected close to term, it may be possible to defer treatment for a short period and induce delivery. [Evidence level IV]

Pregnancy after Treatment of Breast Cancer

Risk of Recurrence

C - Long-term survival after breast cancer does not appear to be affected by pregnancy.

Interval Before Attempting Conception

C - It is recommended that pregnancy should be deferred for at least two years after treatment.

As younger women have significantly lower survival rates and higher local and distant relapse rates than older women, those under 33 years of age might be better advised to delay pregnancy for at least three years, to reduce the risk of relapse. [Evidence level III]

One study has recommended that decisions about future conception should be based on the prognosis for the individual woman. They advise that women with stage-IV disease (with a five-year survival of less than 15%) should not consider a pregnancy and that women with stage-III disease should consider deferring

pregnancy for at least five years after treatment. Women with recurrent stage-I or -II tumours should not contemplate conception because of the intensity of the required treatment and the poor prognosis. [Evidence level IV]

Fertility Treatment

There is no current information about the influence of ovarian stimulation on the risk of recurrence in women who have completed treatment for breast cancer.

Increasing numbers of women wish to consider fertility preservation prior to chemotherapy. Embryo freezing is well validated but only suitable for women with a partner. Egg freezing and ovarian tissue cryopreservation are not yet well established and women should be counselled as to the limited success of these approaches. High levels of circulating oestrogen during ovarian stimulation might have an adverse effect on oestrogen-sensitive tumours and this should be considered when counselling oestrogen-receptor positive women prior to chemotherapy.

Breastfeeding

There is no evidence that women who have completed treatment for breast cancer cannot breastfeed safely from the unaffected breast. Breast-conserving surgery may not inhibit lactation but radiotherapy causes fibrosis and lactation is unlikely in an irradiated breast. During treatment for breast cancer with chemotherapy or radiotherapy, women should not breastfeed.

Definitions:

Grading of Recommendations

Grade A - Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation (evidence levels Ia, Ib)

Grade B - Requires the availability of well-conducted clinical studies but no randomised clinical trials on the topic of recommendations (evidence levels IIa, IIb, III)

Grade C - Requires evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates an absence of directly applicable clinical studies of good quality (evidence level IV)

Levels of Evidence

Ia: Evidence obtained from meta-analysis of randomised controlled trials

Ib: Evidence obtained from at least one randomised controlled trial

IIa: Evidence obtained from at least one well-designed controlled study without randomisation

IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study

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IV: Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for selected recommendations (see "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate management of pregnancy in women with or following breast cancer and minimization of risk of cancer recurrence

POTENTIAL HARMS

None stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- Clinical guidelines are "systematically developed statements which assist clinicians and patients in making decisions about appropriate treatment for specific conditions." Each guideline is systematically developed using a standardised methodology. Exact details of this process can be found in Clinical Governance Advice No. 1: Guidance for the Development of Royal College of Obstetricians & Gynaecologists (RCOG) Green-top Guidelines.
- These recommendations are not intended to dictate an exclusive course of management or treatment. They must be evaluated with reference to individual patient needs, resources and limitations unique to the institution and variations in local populations. It is hoped that this process of local ownership will help to incorporate these guidelines into routine practice. Attention is drawn to areas of clinical uncertainty where further research may be indicated.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). Pregnancy and breast cancer. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2004 Jan. 7 p. (Guideline; no. 12). [58 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2004 Jan

GUIDELINE DEVELOPER(S)

Royal College of Obstetricians and Gynaecologists - Medical Specialty Society

SOURCE(S) OF FUNDING

Royal College of Obstetricians and Gynaecologists

GUIDELINE COMMITTEE

Guidelines and Audit Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Guideline authors are required to complete a "declaration of interests" form.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.

Print copies: Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Bookshop, 27 Sussex Place, Regent's Park, London NW1 4RG; Telephone: +44 020 7772 6276; Fax, +44 020 7772 5991; e-mail: bookshop@rcog.org.uk. A listing and order form are available from the RCOG Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Guidance for the development of RCOG green-top guidelines. Clinical Governance Advice No 1. 2000 Jan. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.
- Searching for evidence. Clinical Governance Advice No 1. 2001 Oct. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.

PATIENT RESOURCES

None available

NGC STATUS

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